

### REMARKS

Reconsideration of this application, as amended, is respectfully requested. Claims 1, 3, 7, 8, 13-15, 23, 24, 30, 35-39, 42 and 44 have been amended and claim 2 has been cancelled. Support for the present amendments may be found in, for example, Figures 2A, 2B, and 3A-C, and paragraph 38 of the originally filed specification and, as such, no new matter is being added by any of the present amendments.

### Claim Objections

Claims 2, 7, 8, 13, 14, 23, 24, 35, 36, 38, 39, and 44 have been amended thus rendering Examiner's objections to the claims moot. Applicants, accordingly, respectfully request withdrawal of the objections to the claims.

### 35 U.S.C. §112 Rejections

Claims 1-32, 35-42 and 44-45 have been amended thus rendering Examiner's rejections of the claims under 35 U.S.C. § 112, first and second paragraphs moot. Applicants, accordingly, respectfully request withdrawal of the rejections to the claims under 35 U.S.C. § 112.

### 35 U.S.C. § 103 Rejections

**Claims 1-5, 7, 8, 15-18, 20-24, 35-40, 42, and 44 are patentable over Kochi et al. (US PG PUB 2002/0179812, hereinafter "Kochi") and Bareket, (U.S. Patent No.: 6,079,256, hereinafter "Bareket") under 35 U.S.C. § 103(a)**

Claim 1, as amended, includes the element of determining a cross sectional dimension of the intermediate section of the measured structural element in response to the first and second distances, wherein the cross sectional dimension is located between a first and second traverse section of the measured structural element, wherein the first traverse section represents a first edge of the measured structural element and the second traverse section represents a second edge of the measured structural element. Kochi fails to disclose at least this element of claim 1.

Kochi discloses an electron beam device including a shape measuring section that serves "to measure the three-dimensional shape of the specimen 9 on the basis of the three-dimensional images as corrected with the data correcting section 31." *Kochi*, paragraph 64. The shape measuring section also measures "three-dimensionally the shape of the specimen 9 on the basis

of reference mark data contained in the data detected at different tilt angles in the state of differences in distortion and in scale due to the tilt contained in the data detected at different tilt angles corrected.” *Id.*, paragraph 23. Thus, the three-dimensional measurements of Kochi are limited to measurements of the relative height or displacement in the z direction of surface features present on a specimen. In contrast, the method of claim 1 requires a determination of a cross sectional dimension that is located between a first and second traverse section of the measured structural element wherein the first traverse section represents a first edge of the measured structural element and the second traverse section represents a second edge of the measured structural element.

Figures 1A and 1B of Kochi illustrate pictures of an object including three equally spaced, equally long straight lines taken at two different tilt angles (0 and 10 degrees). In the picture taken at a tilt angle of 0 degrees (Figure 1A), the lines appear equally long and equally spaced. In the picture taken at a tilt angle of 10 degrees (Figure 1B), the lines do not appear equally long or equally spaced. Thus, Figures 1A and 1B serve to illustrate the problems of viewing an image at two different tilt angles. Figures 2A and 2B illustrate corrected versions of the images of Figures 1A and 1B. However, Kochi provides no indication that the lines of Figures 1A and 1B include first and second traverse sections that represent first and second edges of a measured structural element, respectively as presently claimed.

Thus, for at least these reasons, Kochi fails to disclose at least this element of claim 1. Bareket is cited for providing statistically averaging a first and second distance. However, this element has been removed from claim 1, thus rendering Examiner’s citation of Bareket for this purpose moot. Furthermore, Bareket fails to overcome the above noted deficiency of Kochi. Thus, Kochi, even when considered in combination with Bareket, fails to teach or suggest each and every element of claim 1.

Independent claims 15, 37, and 42 include elements similar to those recited in claim 1 and are patentable over Kochi and Bareket for at least the same reasons as claim 1. Claims 3-5, 7, 8, 16-18, 20-24, 25-40, and 44 depend directly or indirectly from claims 1, 15, and 42, respectively, and are patentable over Kochi and Bareket at least by virtue of this dependency.

**Claims 6, 9-14, 26, and 28 are patentable over Kochi in view of Bareket and Takane et al. (US PG PUB 2003/0010914, hereinafter “Takane”) at least because Takane fail to overcome**

**the deficiencies of Kochi and Bareket**

Claims 6, 9-14, 26, and 28 depend directly or indirectly from claims 1 and 15 and are patentable over Kochi and Bareket for at least the reasons provided above with regard to claims 1 and 15. Takane is cited for providing various features of dependent claims 6, 9-14, 26, and 28 which are not included in Kochi and Bareket. Whether or not this is true, Takane fails to overcome the above noted deficiencies of Kochi and Bareket. Therefore, the combination of Kochi, Bareket, and Takane fail to teach or suggest each and every element of claims 6, 9-14, 26, and 28 and, as such, claims 6, 9-14, 26, and 28 are patentable over Kochi in view of Bareket and Takane.

**Claims 19 and 41 are patentable over Kochi and Bareket at least because the knowledge of a person of ordinary skill in the art fails to overcome the deficiencies of Kochi and Bareket**

Claims 19 and 41 depend directly or indirectly from claims 15 and 42 and are patentable over Kochi and Bareket for at least the reasons provided above with regard to claims 15 and 42. The Office Action states that it would have been obvious to a person of ordinary skill in the art to prevent the electron beam from illuminating the measured structural element as recited in claims 19 and 41. Even if true, the knowledge of a person of ordinary skill in the art still fails to overcome the above noted deficiencies of Kochi and Bareket. Therefore, claims 19 and 41 are patentable over Kochi Bareket, and the knowledge of a person of ordinary skill in the art.

**Claims 27 and 29-32 are patentable over Kochi in view of Bareket and Muckenhirn (US PGPUB 2003/0168594, hereinafter “Muckenhirn”) at least because Muckenhirn fails to overcome the deficiencies of Kochi and Bareket**

Claims 27 and 29-32 depend directly or indirectly from claim 15 and are patentable over Kochi and Bareket for at least the reasons provided above with regard to claim 15. Muckenhirn is cited for teaching various features of dependent claims 27 and 29-32. Whether or not this is true, Muckenhirn fails to cure the deficiencies of Kochi and Bareket with respect to independent claim 15. Therefore, claims 27 and 29-32 are patentable over Kochi and Bareket in view of Muckenhirn.

Applicants, accordingly, respectfully request withdrawal of the rejections under 35 U.S.C. § 103.

Thus, for at least the reasons provided above, Applicant respectfully submits that the present application is in condition for allowance.

Please charge any shortages and credit any overages to Deposit Account No. 19-3140. Any necessary extension of time for response not already requested is hereby requested. Please charge any corresponding fee to Deposit Account No. 19-3140.

Dated: April 27, 2010

Respectfully submitted,

/Tarek N. Fahmi/

Tarek N. Fahmi

Reg. No. 41,402

Sonnenschein Nath & Rosenthal LLP  
P.O. 061080  
Wacker Drive Station, Willis Tower  
Chicago, Illinois 60606-1080  
(650) 798-0320